## AMENDMENTS TO THE CLAIMS

Docket No.: 058653/02062

This listing of claims will replace all prior versions, and listing, of claims in the application:

## **Listing of Claims:**

Claim 1. (Currently Amended) Compounds of formula (I):

where:

 $R^1$  represents a direct bond, an oxygen bond, a group >CH<sub>2</sub>, a sulphur atom, or a group >C=O-a group -(CH<sub>2</sub>)<sub>2</sub>- or a group of formula -N-R<sup>a</sup>, where R<sup>a</sup>-represents a hydrogen atom or a C<sub>1</sub>-C<sub>12</sub> alkyl group;

 $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently selected from hydrogen atoms and substituents  $\alpha$ , defined below;

 $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  are independently selected from hydrogen atoms, hydroxy groups,  $C_1$ - $C_4$  alkyl groups, and phenyl groups which are unsubstituted or substituted by at least one substituent selected from the group consisting of  $C_1$ - $C_4$  alkyl groups and  $C_1$ - $C_4$  alkoxy groups;

or R<sup>9</sup> and R<sup>11</sup> are joined to form a fused ring system with the benzene rings to which they are attached;

R<sup>7</sup> represents a direct bond, an oxygen atom or a -CH<sub>2</sub>- group;

p is 0 or 1;

said substituents α are: a C<sub>1</sub>-C<sub>20</sub> alkyl group, a C<sub>1</sub>-C<sub>20</sub> alkoxy group, a C<sub>2</sub>-C<sub>20</sub> alkenyl group, a halogen atom, a nitrile atom, a hydroxyl group, a C<sub>6</sub>-C<sub>10</sub> aryl group, a C<sub>7</sub>-C<sub>13</sub> aralkyl group, a C<sub>6</sub>-C<sub>10</sub> aryloxy group, a C<sub>7</sub>-C<sub>13</sub> aralkyloxy group, a C<sub>8</sub>-C<sub>12</sub> arylalkenyl group, a C<sub>3</sub>-C<sub>8</sub> cycloalkyl group, a carboxy group, a C<sub>2</sub>-C<sub>7</sub> carboxyalkoxy group, a C<sub>2</sub>-C<sub>7</sub> alkoxycarbonyl group, a C<sub>7</sub>-C<sub>13</sub> aryloxycarbonyl group, a C<sub>2</sub>-C<sub>7</sub> alkylcarbonyloxy group, a C<sub>1</sub>-C<sub>6</sub> alkanesulphonyl group, a C<sub>6</sub>-C<sub>10</sub> arenesulphonyl group, a C<sub>1</sub>-C<sub>6</sub> alkanoxyl group or a C<sub>7</sub>-C<sub>11</sub> arylcarbonyl group;

n is a number from 1 to 12;

 $R^{12}$  represents a hydrogen atom, a methyl group or an ethyl group, and, when n is greater than 1, the groups or atoms represented by  $R^{12}$  may the same as or different from each other;

A represents a group of formula -[O(CHR<sup>13</sup>CHR<sup>14</sup>)<sub>a</sub>]<sub>y</sub>-, -[O(CH<sub>2</sub>)<sub>b</sub>CO]<sub>y</sub>-, or -[O(CH<sub>2</sub>)<sub>b</sub>CO]<sub>(y-1)</sub>[O(CHR<sup>13</sup>CHR<sup>14</sup>)<sub>a</sub>]-, where:

one of R<sup>13</sup>-and R<sup>14</sup> represents a hydrogen atom and the other represents a hydrogen atom, a methyl group or an ethyl group;

a is a number from 1 to 2;

b is a number from 4 to 5;

Q is a residue of a polyhydroxy compound having from 2 to 6 hydroxy groups;

x is a number greater than 1 but no greater than the number of available hydroxyl groups in Q;

y is a number from 1 to 10; and

X<sup>-</sup> represents an anion;

and esters thereof.

- Claim 2. (Original) Compounds according to claim 1, in which x is a number greater than 1 but no greater than 2, and y is a number from 1 to 10; or in which x is a number greater than 2, and y is a number from 3 to 10.
- Claim 3. (Currently Amended) Compounds according to claim 1 or claim 2, in which n is a number from 1 to 6.

Claim 4. (Currently Amended) Compounds according to claim 1 or claim 2, in which n is 1.

- Claim 5. (Currently Amended) Compounds according to <u>claim 1</u> anyone of claims 1 to 4, in which R<sup>12</sup> represents a hydrogen atom.
- Claim 6. (Currently Amended) Compounds according to claim 1 or elaim 2, in which n is a number from 2 to 6 and one group R<sup>12</sup> represents a hydrogen atom, or a methyl or ethyl group and the other or others R<sup>12</sup> represent hydrogen atoms.
- Claim 7. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 6, in which y is a number from 3 to 10.
- Claim 8. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 6, in which A represents a group of formula -[O(CHR<sup>13</sup>CHR<sup>14</sup>)<sub>a</sub>]<sub>y</sub>-, where a is an integer from 1 to 2, and y is a number from 3 to 10.
- Claim 9. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 6 in which A represents a group of formula -[OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>]<sub>y</sub>-, -[OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>]<sub>y</sub>- or [OCH(CH<sub>3</sub>)CH<sub>2</sub>]<sub>y</sub>-, where y is a number from 3 to 10.
- Claim 10. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 6, in which A represents a group of formula  $-[O(CH_2)_bCO]_y$ -, where b is a number from 4 to 5 and y is a number from 3 to 10.
- Claim 11. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 6, in which A represents a group of formula  $-[O(CH_2)_bCO]_{(y-1)}-[O(CHR^{\frac{132}{2}}CHR^{\frac{144}{2}})_a]$ , where a is a number from 1 to 2, b is a number from 4 to 5 and y is a number from 3 to 10.

Claim 12. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, in which x is 2 and y is a number from 1 to 10.

- Claim 13. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, in which y is a number from 3 to 6.
- Claim 14. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, in which the residue Q-(A-)<sub>x</sub> has a molecular weight no greater than 2000.
- Claim 15. (Original) Compounds according to claim 14, in which the residue Q-(A- $)_x$  has a molecular weight no greater than 1200.
- Claim 16. (Original) Compounds according to claim 15, in which the residue Q-(A- $)_x$  has a molecular weight no greater than 1000.
- Claim 17. (Original) Compounds according to claim 16, in which the residue Q-(A-)<sub>x</sub> has a molecular weight no greater than 800.
- Claim 18. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, in which Q is a residue of ethylene glycol, propylene glycol, butylene glycol, glycerol, trimethylolpropane, di-trimethylolpropane, pentaerythritol or di-pentaerythritol.
- Claim 19. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 18, in which  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently selected from hydrogen atoms,  $C_1$ - $C_{10}$  alkyl groups,  $C_1$ - $C_{10}$  alkoxy groups, halogen atoms, and  $C_3$ - $C_8$  cycloalkyl groups.
- Claim 20. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 19, in which three or four of  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  represents hydrogen atoms.

Claim 21. (Original) Compounds according to claim 19, in which one or more  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  represents an ethyl or isopropyl group.

- Claim 22. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 21, in which two, three or four of R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> represents hydrogen atoms.
- Claim 23. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims  $\frac{1 \text{ to } 21}{1 \text{ to } 21}$ , in which all of  $\mathbb{R}^8$ ,  $\mathbb{R}^9$ ,  $\mathbb{R}^{10}$  and  $\mathbb{R}^{11}$  represent hydrogen atoms.
- Claim 24. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 23, in which R<sup>1</sup> represents a group >C=O, a sulphur atom or a direct bond.
- Claim 25. (Withdrawn) Compounds according to claim 24, in which R<sup>1</sup> represents a group >C=O.
- Claim 26. (Currently Amended) Compounds according to <u>claim 1</u> any one of claims 1 to 23, in which that part of the compound of formula (I) having the formula (IV):

$$R^{6} = R^{1}$$

$$R^{2}$$

$$R^{4}$$

$$R^$$

(in which R<sup>1</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are as defined in claim 1) is a residue of substituted or unsubstituted thianthrene, dibenzothiophene, thioxanthone, thioxanthene, phenoxathiin, phenothiazine or N-alkylphenothiazine.

Claim 27. (Withdrawn) Compounds according to claim 26, in which said residue is substituted or unsubstituted thioxanthone.

- Claim 28. (Withdrawn) Compounds according to claim 26, in which said residue is substituted or unsubstituted thianthrene.
- Claim 29. (Withdrawn) Compounds according to claim 26, in which said residue is substituted or unsubstituted dibenzothiophene.
- Claim 30. (Withdrawn) Compounds according to claim 26, in which said residue is substituted or unsubstituted phenoxathiin.
- Claim 31. (Withdrawn) Compounds according to claim 26, in which said residue is substituted or unsubstituted phenothiazine or N-alkylphenothiazine.
- Claim 32. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, in which:

R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are individually the same or different and each represents a hydrogen atom or an alkyl group having 1 to 4 atoms.;

R<sup>7</sup> is a direct bond;

 $R^{8}$ ,  $R^{9}$ ,  $R^{10}$  and  $R^{11}$  represent hydrogen atoms, and especially such compounds where p is 0; and

A represents a group of formula -[OCH $_2$ CH $_2$ CH $_2$ CH $_2$ ] $_y$ -; and

Q represents a residue of butylene glycol.

Claim 33. (Original) Compounds according to claim 1, in which

R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are individually the same or different and each represents a hydrogen atom or an alkyl group having from 1 to 4 carbon atoms;

R<sup>7</sup> represents a direct bond;

R<sup>8</sup>, R<sup>9</sup>, and R<sup>11</sup> represent hydrogen atoms;

R<sup>10</sup> represents a phenyl group;

p is 0;

A represents a group of formula -[OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>]<sub>Y</sub>-; and

Q represents a residue of butylene glycol.

Claim 34. (Currently Amended) Compounds according to <u>claim 1</u> any one of the preceding claims, in which  $X^-$  represents  $PF_6^-$ ,  $SbF_6^-$ ,  $AsF_6^-$ ,  $BF_4^-$ ,  $B(C_6F_5)_4^-$ ,  $R^aB(Ph)_3^-$  (where  $R^a$  represents a  $C_1$ - $C_6$  alkyl group and Ph represents a phenyl group),  $R^bSO_3^-$  (where  $R^b$  represents a  $C_1$ - $C_6$  alkyl or haloalkyl group or an aryl group),  $ClO_4^-$ , or  $ArSO_3^-$  (where Ar represents an aryl group) group.

Claim 35. (Original) Compounds according to claim 33, in which  $X^-$  represents  $PF_6^-$ ,  $SbF_6^-$ ,  $AsF_6^-$ ,  $CF_3SO_3^-$  or  $BF_4^-$  group.

Claim 36. (Original) Compounds according to claim 34, in which  $X^-$  represents a  $PF_6^-$  group.

Claim 37. (Currently Amended) Compounds according to <u>claim 1</u> any one of the <u>preceding claims</u>, having the formula (Ia):

$$\begin{array}{c|c}
R^5 & R^4 \\
R^6 & R^8
\end{array}$$

$$\begin{array}{c|c}
R^9 & R^8
\end{array}$$

$$\begin{array}{c|c}
R^7 & R^8
\end{array}$$

$$\begin{array}{c|c}
R^{10} & R^{10} \\
C & R^{12} & R^{10}
\end{array}$$

$$\begin{array}{c|c}
C & R^{12} & R^{10}
\end{array}$$

in which  $R^1$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{12}$ , p, x, n, A, Y and  $X^-$  are as defined in claim 1.

Claim 38. (Currently Amended) An energy-curable composition comprising (a) a polymerizable monomer, prepolymer or oligomer; and (b) a photoinitiator which is a compound of formula (I), as claimed in claim 1 any one of the claims 1 to 37.

Claim 39. (Original) A process for preparing a cured polymeric composition by exposing a composition according to claim 38 to curing energy.

Claim 40. (Original) A process according to claim 39, in which the curing energy is ultraviolet radiation.